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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of:

KATSUFUSA FUJITA

Ser. No.: 10/542,394

Filed: 7/13/05



) SKEW SHAPE VARIABLE LAMINATED  
) IRON CORE AND METHOD OF  
) MANUFACTURING THE SAME

) Examiner T. Nguyen

) Art Unit 2834

REQUEST FOR RECONSIDERATION

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Sir:

Claims 1 and 3-12 are currently pending in the application. All pending claims stand rejected under 37 USC §103 as obvious over U.S. Patent No. 5,923,112, to Bertocchi et al (Bertocchi), in view of JP-2002-136015 (JP '015). Reconsideration of the rejection of claims 1 and 3-12 is requested.

Claim 1 recites that with the upper and lower layers laminated together and the caulking projection of the iron core piece of the upper layer fitted in the caulking hole of the iron core piece of the lower layer, "the caulking projection of the iron core piece of the

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37 CFR 1.8  
CERTIFICATE OF MAILING

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upper layer is movable circumferentially within the caulking hole of the iron core piece of the lower layer to thereby allow the laminated iron core pieces of the upper and lower layers to move relative to each other around the rotation center a predetermined amount, as determined by relative circumferential dimensions of the caulking projection of the core piece in the upper layer and caulking hole of the iron core piece of the lower layer".

This relative movement is made possible by making the caulking hole with an arc shape that is longer in a circumferential direction than that of the caulking projection in that caulking hole.

It is the Examiner's position that Bertocchi teaches all elements of claim 1 with the exception of the arc-shaped caulking holes (pg. 6 of Action, lines 8 and 9). Applicant respectfully disagrees with this position for the reasons stated below.

First of all, to rely upon a piece of prior art for a particular disclosure, that disclosure must be "clear". As noted in MPEP §2125 with respect to anticipation:

[d]rawings and pictures can anticipate claims if they clearly show the structure which is claimed (our emphasis)

It is respectfully submitted that Bertocchi is relied upon by the Examiner for structure that is not clearly shown therein. More specifically, the circumferential relationship between each cooperating caulking projection and caulking hole is not clearly set forth in Bertocchi in either the drawings or detailed description.

The Examiner relies upon the disclosure in column 3 of Bertocchi (lines 24-35) which is expressly based upon Figs. 2 and 4 therein. Fig. 2 is clear as to the circumferential relationship between the "clips 3" and "cavities 6" on layers that are laminated. The clips 3 are shown with the same circumferential dimension as the cavities

6. That being the case, there would be no circumferential relative movement permitted between the laminated layers.

Fig. 4 is characterized in the Brief Description of the Drawings in Bertocchi as being a sectional view "having been taken on a broken line (**not shown**)" (our emphasis). If the section view in Fig. 4 is along a line equidistantly spaced from the center axis for the layers, the circumferential relationship between the clips 3 and cavities 6 is inconsistent with that shown in Fig. 2.

Even if the "clearance" in Fig. 4 referenced in column 3 of Bertocchi is circumferential, the language of claim 1 is still not met. Bertocchi discloses only that the relative angle between the die (10) and strip is changed at a predetermined angle B in order to flatten deviations in the metal strip with respect to the thickness or mechanical properties of the material in the laminations, after stacking. In that respect, Bertocchi is changing only the orientations of the laminations, one relative to the other to produce the referenced "spiraled articles". This is a very different concept from that of being able to skew laminated layers as Applicant contemplates. There is no disclosure in Bertocchi's of being able to circumferentially move the layers, one relative to the other, after they are laminated by being stacked with the clips 3 directed into the cavities 6.

Consistent with this is the fact that even if Fig. 4 is a section view taken along a circular line, no relative circumferential movement between layers is contemplated by Bertocchi. As seen in Fig. 4, each of the clips 3 is centered within its associated cavity 6. This is consistent with the Examiner's recognition that the components 3, 6 are not shown to be arcuate in shape. That is, if the shape of the radially inwardly and outwardly facing surfaces of the clips 3 and cavities 6 are not of a complementary arcuate shape with a

common center 5, such relative circumferential movement could not occur with there being multiple paired clips and cavities at circumferentially spaced locations. Rather, with a flattened configuration, and multiple clips 3 and cavities 6 engaged in each pairing of the layers, as shown, only one relative circumferential relationship between those layers can be established; presumably a centered relationship for the clips and cavities as shown in Fig. 4. That is, the engaging, non-arc-shaped surfaces would effectively cooperate to key the layers against relative circumferential movement.

Consistent with this is the fact that Bertocchi also touts "rigidity" for the resulting laminated article. As stated in column 2, lines 23-25 of Bertocchi:

A further object is to provide a laminated article comprising elements for connecting the laminations together which insure greater rigidity to the article.

As also stated in column 4, lines 33-34:

It should be further noted that the laminations of the invention result in more rigid packs.

*Webster's Ninth New Collegiate Dictionary* defines rigid as "deficient in or devoid of flexibility" (See Attachment A). This is inconsistent with the contemplated controlled skewing of the laminated layers recited in claim 1. Consequently, while Bertocchi's disclosure is unclear in many respects, it is consistent in teaching that there is **no circumferential movement between laminated layers** as specifically required in Applicant's claim 1.

JP '015, as previously explained, shows laminated sheets that are fixed to each other by caulking a clamp groove 114 using depressions 116a and 116b. While adjacent layers may be circumferentially shifted prior to lamination, once lamination and caulking occurs, the sheets become fixed and stationary relative to each other.

It is respectfully submitted that Bertocchi and Japan '015 do not collectively teach or make obvious an iron core made from laminated layers that, once laminated, can be shifted circumferentially, one relative to the other, as recited in claim 1 and its dependent claims.

Claim 5 is directed to a method of making a laminated core with the layers that are circumferentially movable, one relative to the other, as in claim 1. For the reasons advanced relative to the allowability of claim 1, claim 5 and its dependent claims are likewise believed allowable.

Reconsideration of the rejection of claims 1 and 3-12 and allowance of the case are requested.

Respectfully submitted,

By   
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